



U.S. Department
of Transportation
**Research and
Special Programs
Administration**

JUL 14 2000

400 Seventh St., S.W.
Washington, D.C. 20590

DOT-E 8354
(FOURTH REVISION)

EXPIRATION DATE: June 30, 2002

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Arbel-Fauvet-Rail (AFR), Paris, France
(U.S. Agent: Mary Hoyt-Joyce
Chevy Chase, Maryland)

(See Appendix A to this document for a list of additional grantees and expiration dates)

2. PURPOSE AND LIMITATION:

- a. This exemption authorizes the transportation in commerce of certain Division 2.1 gases in non-DOT specification portable tanks. This exemption provides no relief from any Hazardous Materials Regulation (HMR) other than as specifically stated herein.
- b. The safety analyses performed in development of this exemption only considered the hazards and risks associated with transportation in commerce.

3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.

4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 173.315

5. BASIS: This exemption is based on the application of Arbel-Fauvet-Rail dated June 13, 2000, submitted in accordance with § 107.109.

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6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Proper Shipping Name/ Hazardous Materials Description	Hazard Class/ Division	Identi- fication Number	Packing Group
Butadienes, inhibited	2.1	UN1010	N/A
Butane and Butane Mixtures	2.1	UN1011	N/A
Butylene	2.1	UN1012	N/A
Dimethylamines, anhydrous	2.1	UN1032	N/A
Ethyl Chloride	2.1	UN1037	N/A
Isobutylene	2.1	UN1055	N/A
Methylamine, anhydrous	2.1	UN1061	N/A
Methyl Chloride or Refrigerant gas R 40	2.1	UN1063	N/A
Trimethylamine, Anhydrous	2.1	UN1083	N/A
Vinyl chloride, stabilized	2.1	UN1086	N/A
Isobutane	2.1	UN1969	N/A

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Packages prescribed are non-DOT specification portable tanks designed and constructed in accordance with Fauvet-Girel drawings Co-166177 and Co-166178, dated August 2, 1979, and general drawings Co-166168 and Co-166169 and calculations on file with the Office of Hazardous Materials Exemptions and Approvals (OHMEA), and in compliance with the following:

- (1) Code - Complies with ASME Section VIII Div. 1 but not certified, and IMCO Type V specification. Tank is enclosed in an ISO Type 1c frame.
- (2) Insulation - none.
- (3) Number of Compartments - one.
- (4) Water Capacity (U.S. Gallons) - 6,517

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- (5) Material - Carbon steel A52FP with 73,970 psi tensile strength and 22% elongation. Stress relieved after welding.
- (6) Tank Size (inches) $\frac{(\text{outsidedia.}) \times (\text{length}) \times (\text{thickness})}{94.5 \quad 235.625 \quad 0.402}$
Head Thickness - 0.449
- (7) Design Pressure (PSIG) - 150.
Note: Design pressure means "maximum allowable working pressure (MAWP)" as used in the ASME Code.
- (8) Test Pressure, Minimum (PSIG) - 225.
- (9) Openings -- One 18 inch manhole, lower part of one head, 2 bottom discharge openings.
- (10) Tank surface area (square feet) - 520.
- (11) Safety Relief Devices - Each tank must be equipped with 2 spring loaded safety valves in series with and out board of one rupture disc all set to relieve at not less than design pressure and not more than 110 per cent of tank design pressure. Total venting capacity is 800,400 SCFH.
- i. Tanks constructed after December 31, 1980 must have all pressure relief devices sited on the top of the tank in a position as near the longitudinal and transverse center of the tank as possible. In no case shall the device be sited more than 3.5 feet or 1/6 the tank length, whichever is less, from the transverse axis of the tank measured along the longitudinal axis and also within 12 degrees from the top of the tank. A drawing documenting this configuration must be on file with the OHMEA prior to the first shipment.
- ii. Each safety relief device must be installed to have direct communication with the vapor space of the tank at the midlength of the top centerline.
- (12) G-Loadings: Vertical down 2; Vertical up 1; Longitudinal 2; and Transverse 1.

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(13) Maximum Gross Weight:

- a. 52,910 pounds for tank constructed to general dwg. 166168.
- b. 55,000 pounds for tank constructed to general dwg. 166169.

b. TESTING -

1. Each tank must be (i) visually inspected prior to each trip to insure that it has not been damaged on the previous trip; (ii) visually inspected at least once every 2-1/2 years in accordance with the provisions of § 177.824(b); and (iii) pressure tested at least once every 5 years at one and one-half times the design pressure in accordance with the provisions of § 173.32(e) for DOT 51 specification portable tanks.

2. Hydrostatic test certificates for each tank must be maintained by the owner or manufacturer at its principal business office and be made available to any representatives of the DOT upon request.

c. OPERATIONAL CONTROLS -

1. Each portable tank must be plainly marked on both sides near the middle, in letters at least two inches high on a contrasting background, "DOT-E 8354".

2. The tank must be filled so as not to be liquid full at 130°F. In addition the filling density requirements of § 173.315 must be met.

8. SPECIAL PROVISIONS:

a. A person who is not a holder of this exemption who receives a package covered by this exemption may reoffer it for transportation provided no modifications or changes are made to the package and it is reoffered for transportation in conformance with this exemption and the HMR.

b. A current copy of this exemption must be maintained at each facility where the package is offered or reoffered for transportation.

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, rail freight and cargo vessel.

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10. MODAL REQUIREMENTS:

a. A current copy of this exemption must be carried aboard each cargo vessel or motor vehicle used to transport packages covered by this exemption.

b. Portable tanks may not be transported in railcar-on-flatcar (TOFC) service except under conditions approved by the Associate Administrator for Safety, Federal Railroad Administration (FRA). Portable tanks may be transported in container-on-flatcar (COFC) service only under the following conditions:

1. Portable tanks must be equipped to be securely attached to a railcar equipped with an ISO standard COFC basic pedestal system designed for container support and securement;

2. Each railcar used to transport portable tanks must be equipped with a cushioning system that meets the requirements of the Association of American Railroads Specification M-952-82; and

3. Shipments made under this exemption must be in accordance with § 174.84.

11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this exemption and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq.:

o All terms and conditions prescribed in this exemption and the Hazardous Materials Regulations, 49 CFR Parts 171-180.

o Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this exemption must receive training on the requirements and conditions of this exemption in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this exemption, including display of its number, when the exemption has expired or is otherwise no longer in effect.

12. REPORTING REQUIREMENTS:

a. The carrier is required to report any incident involving loss of packaging contents or packaging failure to the Associate Administrator for Hazardous Materials Safety (AAHMS) as soon as practicable. (Sections 171.15 and 171.16 apply to any activity undertaken under the authority of this exemption.) In addition, the holder(s) of this exemption must inform the AAHMS, in writing, of any incident involving the package and shipments made under the terms of this exemption.

b. The owner of the tanks covered by this exemption shall provide to the OHMEA a list of all shippers who have shipped under this exemption and a shipping experience report every six months from the effective date of this exemption. The shipping experience report shall contain approximate number of shipments made during the previous six months and any difficulties encountered.

c. The holder of this exemption, as identified in paragraph 1 above, shall contact the OHMEA immediately after any of the tanks covered by this exemption are sold to another party.

Issued at Washington, D.C.:



Robert A. McGuire
Acting Associate Administrator for
Hazardous Materials Safety

JUL 14 2000
(DATE)

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Research and Special Programs Administration, Department of Transportation, Washington, D.C. 20590.
Attention: DHM-31.

The original of this exemption is on file at the above office. Photo reproductions and legible reductions of this exemption are permitted. Any alteration of this exemption is prohibited.

Copies of exemptions may be obtained from the AAHMS, U.S. Department of Transportation, 400 7th Street, Washington, DC 20590-0001, Attention: Records Center, 202-366-5046.

PO: sln

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The following are hereby granted party status to this exemption based on their application(s) submitted in accordance with § 107.107 or § 107.109, as appropriate:

Company Name City/State	Application Date	Issue Date	Expiration Date
VOTG Tanktainer GmbH Hamburg, Germany (Former Grantee: VTG Vereinigte Tanklager und Transportmittel GmbH) (U.S. Agent: VOTG North America West Chester, PA)	9/13/00	OCT 2 2000	6/30/2002

for Ann Mazzullo
Robert A. McGuire
Associate Administrator for
Hazardous Materials Safety